Lake Huron Fish-Community Objectives and Guiding Principles



Guiding Principles

- Ecosystem management
- Preservation and restoration of habitat
- Limits on fish harvest recognized
- Naturally reproducing fish populations
- Stocked fish are essential
- Naturalized species important; exotic species concerns

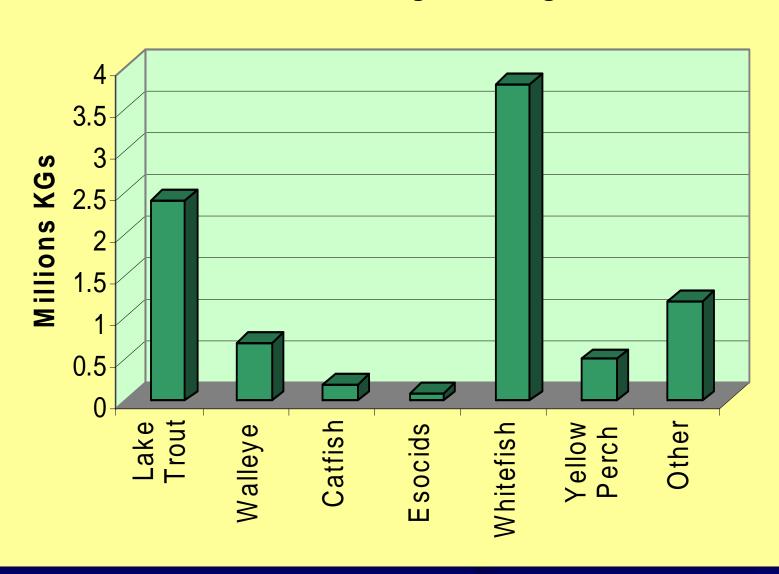
Guiding Principles(Cont..)

- Rare/endangered fishes add richness
- Species/genetic diversity important
- Societal-economic value consideration
- Fisheries are cultural heritage
- Management based on sound science/societal needs

Fish Community Past and Present

- Lake Huron's past fish community was dominated by lake trout, whitefish and burbot
- Fishing and sea lamprey caused native trout to be largely extinct
- The fish community is still in transition
- Current fish community objectives are based on landings from 1912-1940

1912-1940 Average Landings



Overall Fish Community Objective

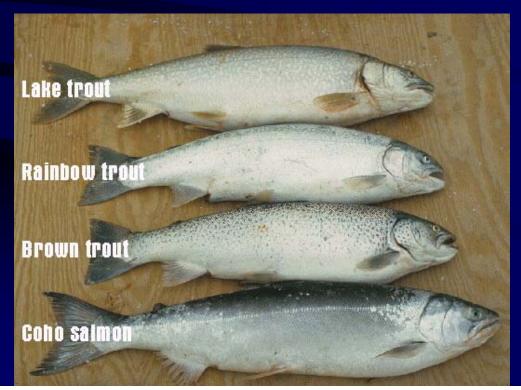
• Over the next two decades, restore an ecologically balanced fish community dominated by top predators and consisting largely of self-sustaining indigenous and naturalized species capable of sustaining annual harvests of 8.9 million kg(19.6 million pounds)

Fish Community Objective Considerations

- Species mix
- Fishing opportunities
- Habitat
- Management inexact
- Real or potential invaders
- 2000 and 2010 reviews

Salmon and Trout Objective

• Establish a diverse salmonine community that can sustain an annual harvest of 2.4 million kg with lake trout the dominant species and anadromous(stream-spawning) species also having a prominent role.



Walleye and Perch Objective

- Reestablish and or maintain walleye as the dominant coolwater predator over its traditional range with a harvest objective of 0.7 million kg.
- Maintain yellow perch as the dominant nearshore omnivore with a harvest objective of 0.5 million kg.





Lake Whitefish and Ciscoe Objective

- Manage lake whitefish and ciscoes at levels capable of sustaining annual harvests of 3.8 million kg.
- Restore lake herring to a significant level and protect, where possible deepwater ciscoes.

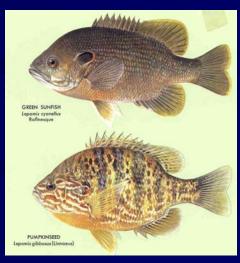
Bass-Sunfish Objective

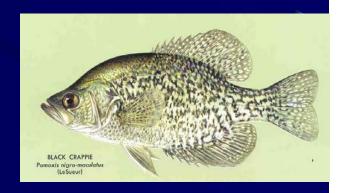
• Sustain smallmouth and largemouth bass and the other assemblage of sunfishes at recreationally attractive levels over their

natural range.









Sturgeon Objective

- Increase the abundance of lake sturgeon to the extent that the species is removed from its threatened status in US waters.
- Maintain or rehabilitate populations in Canadian waters.



Prey Objective

• Maintain a diversity of prey species at population levels matched to primary production and to predator demands.



Pike and Muskellunge Objective

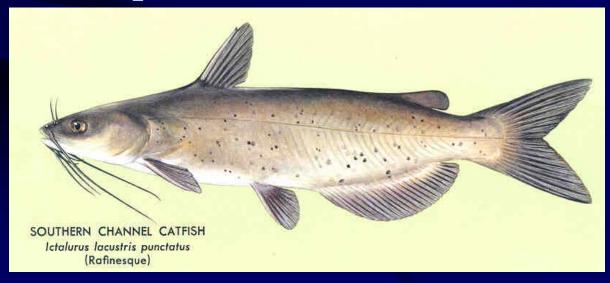
- Maintain pike as a prominent predator in its natural range.
- Maintain muskellunge in numbers and sizes that will safeguard and enhance its special appeal.
- Sustain a harvestable annual surplus of 0.1 million kg.





Channel Catfish Objective

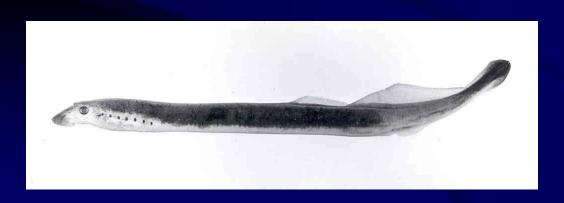
• Maintain channel catfish as a prominent predator throughout its natural range while sustaining a harvestable annual surplus of 0.2 million pounds.



Sea Lamprey Objective

 Reduce sea lamprey abundance to allow the achievement of other fish community objectives

• Obtain a 75 percent reduction in parasitic sea lamprey by the year 2000 and 90 percent by year 2010



Species Diversity Objective

• Recognize and protect the array of other indigenous fish species because they contribute to the richness of the fish

community.







Genetic Diversity Objective

- Maintain and promote genetic diversity by conserving locally adapted strains
- Ensure that strains of fish being stocked are matched to the environments they are to inhabit

Habitat Objectives

- Protect and enhance fish habitat and rehabilitate degraded habitats
- Achieve no net loss
- Support the reduction or elimination of contaminants